W 1 UNAGE



ARMORED MEDICAL RESEARCH LABORATORY

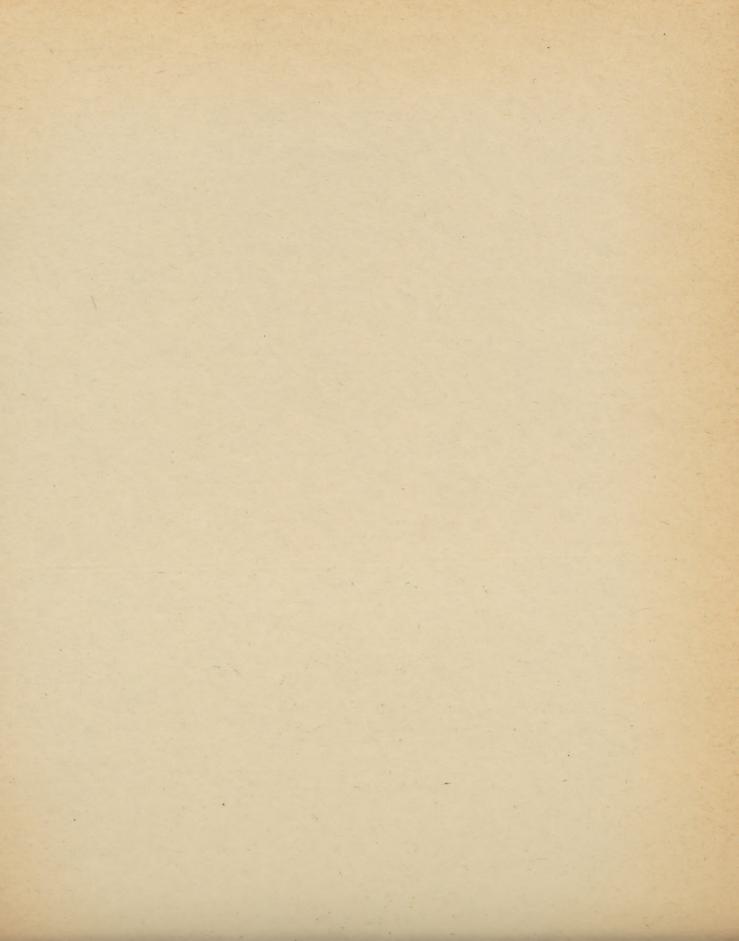
FORT KNOX, KENTUCKY

INDEXED

Report On

PROJECT NO. 32 - LETTER REPORT ON TEST OF SOCKS, CUSHION SOLE, EXPERIMENTAL





ARMORED MEDICAL RESEARCH LABORATORY Fort Knox, Kentucky

Project No. 32 727-123 SPMEA

28 July 1944

- 1. PROJECT: NO. 32 Letter Report on Test of Socks, Cushion Sole, Experimental.
- a. Authority Letter Army Service Forces, Office Quartermaster General, 10 April 1944, File SPQRD 400.112.
- b. Purpose To compare socks, cushion sole, Experimental, and socks, wool, cushion sole, with respect to comfort, irritation of feet, and excessive sweating.

2. DISCUSSION:

- a. It was requested that a preliminary test of the subject, socks, be carried out under a variety of environmental conditions, viz: cold, warm, and wet. However, facilities were not currently available for extended tests of this nature, and therefore, the following limited test was made.
- b. Fifteen (15) men were issued one pair each of socks, wool, cushion sole, and socks, cushion sole, experimental. These men were members of the 717th Tank Bn., engaged in driving experimental tanks nine (9) hours daily during the hottest part of the Fort Knox summer, environmental temperatures frequently being over 90°F with high humidity.
- c. The men wore the socks for a varying number of days, depending on whether they laundered them themselves or sent them to the laundry. Five (5) of the subjects wore one or the other pair every day of the three (3) week test period.

3. OBSERVATIONS:

a. The comments made, applicable to both test socks equally, were as follows:

Comment	Number of Men
Warmer than standard issue Warmer, with increased sweating Warmer, with diminished sweating	2 2 2 2
Too tight in shoes Preferable to issued socks	1 8

b. (1). Of the fifteen (15) men, three (3) developed a macular type of erythema of the lower leg just above the shoe top, with very little itching, having a band-like distribution of approximately two to three inches extent, corresponding in location to the cuff of the sck. In all cases this reaction

gave evidence of healing spontaneously at the end of the three (3) week period in spite of continued wear of the socks. In two (2) of the men the healing was accompanied by branny desquamation, while in the third, lichenification of very slight extent was noted in addition.

- (2) One (1) subject developed this skin reaction on the third day after he had begun to wear the test socks. Another subject developed it on the fourth day, while the third subject believed that it might have been present about a week prior to the issue of the test socks. This last subject did not feel that the test socks aggravated the condition in any way.
- (3) There was no evidence of skin irritation of either the foot surface or the interdigital areas of any subject.
- (4) Since the subjects were examined only at the end of the three (3) week test period, it is not possible to say to which of the two test socks the lesion is to be attributed.

4. CONCLUSIONS:

a. An erythematous reaction was noted in approximately 15% of a small group of men who wore the test socks. Their skin reactions were not of a serious nature, and seemed to be healing despite continued wear of the socks. However, since one subject may have had the rash prior to the test, it is not possible with certainty to incriminate the subject items.

5. RECOMMENDATIONS:

a. In view of the possibility that the socks may have been responsible for the skin reactions noted, it is suggested that a larger number of test socks be issued to infantry troops engaged in field activities and that observations be made by a medical officer at frequent intervals in order to determine the extent and severity of the reactions.

Submitted by:

'Arthur Freedman, Capt., MC

WILLARD MACHLE
Colonel, Medical Corps
Commanding